

CLAIMS

1. Convertible vehicle (1) comprising a rear  
5 boot (3), a hood (4) for this rear boot and a roof (2)  
collapsible inside the boot (3), sets of pivots (5 and  
7) which are capable of swivelling the hood from the  
rear towards the front or from the front towards the  
rear, each set of pivots (5 and 7) comprising a base (9)  
10 firmly linked to the bodyshell (10 and 100) of the  
vehicle (1), a body (11 and 110) linked to the hood (4)  
via a piece creating a hinge (12) and which comprises a  
first assembly element (13, 130 and 230) capable of  
engaging in a detachable manner into a second assembly  
15 element (14) linked to the corresponding base (9), by  
means of first and second runner surface(s) (17a, 13a,  
16c, 16e, 14a, 170a, 260c and 270a) respectively fitted  
to the first assembly element (13, 130 and 230), on one  
hand, and to the second assembly element (14) and/or to  
20 a movable part (16, 160 and 260) of means for  
locking/unlocking (16 and 17), on the other hand, these  
first and second runner surface(s) only working  
together at the end of the swivel movement of the hood

relative to the bodyshell, to then guide the hood to its locked position, the means for locking/unlocking comprising a first means for engaging (16, 160 and 260) linked to the base in a movable manner according to a  
5 locking/unlocking direction (D1 and D10) and capable of engaging in a free manner a second complementary means for engaging (17 and 21) linked to the first assembly element so as to, in a locked position, lock the body (11 and 110) in relation to said base (9), the device  
10 further comprising control means (60) to bring the second means for engaging (17, 171 and 271) onto the displacement track of the first means for engaging (16, 160 and 260), and according to an engagement direction (D3 and D30) transversal to said locking/unlocking  
15 direction (D1 and D10), characterised in that the first and second means for engaging (16, 17, 160, 171, 260 and 271) respectively have between them first and second contact surfaces with co-operative shapes linked to the movement of the first concerned means for  
20 engaging (16, 160 and 260) on its displacement track, so that for at least the main part of its stroke, said first means for engaging applies a substantially constant pressure on the corresponding second means for engaging.

25       2. Vehicle set forth in claim 1, characterised in that the first and preferably the second contact surface(s) have an initial pressure zone (16e, 17a, 170a, 260e and 270a1) where, during locking, the contact is initiated between these surfaces, this  
30 initial contact zone being tilted in relation to the displacement direction (C, D1 and D10) of the first

means for engaging (16, 160 and 260) and interposed across the track of the first means for engaging, so that the latter displaces the corresponding second means for engaging (17, 171 and 271) according to said 5 locking direction, by applying a pressure that increases as the contact continues, before said pressure becomes and remains substantially constant, whereas the second means for engaging practically stops moving according to said locking direction.

10       3. Vehicle set forth in claim 1 or 2, characterised in that the first means for engaging is swivel mounted in relation to the corresponding base (9) and has an engagement surface (16c and 160) along which it engages the corresponding second means for engaging 15 (17 and 170a), this engagement surface extending according to a circle (C) whose centre is located on the swivel axle (16b) of the first means for engaging.

20       4. Vehicle set forth in at least one of claims 2 and 3, characterised in that the first means for engaging comprises a means with a hook (16) whose first contact surface is rounded, the second contact surface of the second means for engaging (17) also being rounded.

25       5. Vehicle set forth in any of the previous claims, characterised in that the first and second runner surface(s) (13a, 14a and 15a) respectively belong to a substantially wedge-shaped male element (15a) of the first assembly element (13) engaging into a female element comprising a substantially wedge-shaped cavity (15b) capable of receiving it and 30 belonging to the second assembly element (14).

6. Vehicle set forth in any one of claims 1 to 5, characterised in that the, or some of the, first and second runner surface(s) (16c, 16e, 17a, 170a, 260c and 270a) respectively belong to a backup support (17, 21, 5 171 and 271) of the first assembly element (13, 130 and 230) and to the first movable means for engaging (16) of the means for locking/unlocking which is capable of gripping with said backup support so as to, during locking, lean against it whereas the first assembly 10 element (13, 130 and 230) has not yet reached its locked position, along its engagement direction, and accompany the end of its swivel movement and thus that of the hood (4), down to said corresponding locking position.

15 7. Vehicle set forth in one of the previous claims, characterised in that the sets of pivots (5 and 7) comprise a front set of pivots (5) capable of swivelling the hood (4) from the rear to the front and a rear set of pivots (7), located nearer the rear of 20 the boot and the hood than the front set of pivots and capable of swivelling said hood (4) from the front towards the rear.

8. Vehicle set forth in claims 4 and 7, characterised in that:

25 - the front set of pivots (5) is located at the front of the boot and the hood and the rear set of pivots (7) is located at the rear of the boot and the hood;

- and, at the front, the hooks (16) are open 30 towards the front and, at the rear, the hooks are open towards the rear.

9. Vehicle set forth in claims 7 and 8, characterised in that the second assembly element (14) of each set of pivots (5 and 7) comprises a third complementary means for engaging (21) linked to the  
5 second assembly element and capable of being engaged in a free manner by the first means for engaging (16), which is designed so as to be able to have several positions of which one authorised rotation position of the hood in which, at the place of one among the front  
10 and rear sets of pivots, this first means for engaging (16, 160 and 260) maintains the second complementary engaging element (17, 171 and 271) engaged with it whilst releasing the third complementary engaging element (21) from its engagement, thus ensuring the  
15 hinge effect during the swivel opening of the hood, whereas at the other place among said front and rear sets of pivots (5 and 7), the first engaging element (16, 160 and 260) releases both the second and third complementary engaging elements from being engaged with  
20 it, so that the hood can then be distanced at this place from the bodyshell (10) by swivelling around said created hinge (12).

10. Vehicle set forth in claim 9, characterised in that the piece creating the hinge (12) of each set  
25 of pivots (5 and 7) comprises at least one arm (40 and 41), articulated on one side in relation to the hood (4) and on the other side in relation to the corresponding body (11), and the third concerned complementary means for engaging (21) is preferably located on this (or one  
30 of these) arm(s).

11. Vehicle set forth in claim 10, characterised in that:

5 - the second complementary means for engaging consists in a backup support (17) integral with a foot (43) of the body (11) on which the concerned arm (40 and 41) is articulated at its said other end;

- the third complementary means for engaging consists in a backup support (21) integral with said arm;

10 - and the first corresponding means for engaging (16) successively meets and leans against these second then third complementary means for engaging during the locking of the body (11) in relation to the base (9), the arm (41) fitted with said  
15 third complementary means for engaging (21) then itself leaning against a part (45) of the foot (43), in the direction of the engagement of the first and second means for assembling one to the other.

12. Vehicle set forth in claim 7 or one of the  
20 related claims, characterised in that the means for commanding (60) operate to control the swivelling of the hood (4 and 400) in a first direction (6), from the rear towards the front, or in the other direction (8), from the front towards the rear, between its closed  
25 position and one or other of its open positions (4a and 4b), this vehicle advantageously comprising means (67) for manually unlocking at least the rear set of pivots (7) from the outside of the vehicle.